UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,064	07/16/2001	Lino Iglesias	38146	1264

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JEFFREY FURR
253 N. MAIN STREET
JOHNSTOWN, OH 43031

EXAMINER
ROCHE, TRENTON J

ART UNIT	PAPER NUMBER
2124	

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/682,064	IGLESIAS, LINO
	Examiner	Art Unit
	Trent J Roche	2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 May 2004*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>28-33</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>28-33</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 May 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This office action is responsive to Amendment A filed 7 May 2004.

2.   Per applicant's request, claims 1-27 have been canceled. New claims 28-33 have been

entered.

3.   ,   Claims 28-33 have been examined.

Drawings

4.   The drawings were received on 7 May 2004. These drawings are acceptable.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6.   Claims 28, 30 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

7.   Claims 28 and 30 recite the limitation "the file structure data" in line 4. There is insufficient

antecedent basis for this limitation in the claim. For purposes of examination this will be interpreted

to read "a file structure data."

8.   Claim 32 recites the limitation "said base component" in line 8. There is insufficient

antecedent basis for this limitation in the claim. For purposes of examination this will be interpreted

to read "a base component."

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

6,480,856 to McDonald et al, in view of U.S. Patent 5,940,820 to Kagiwada.

Regarding claim 28:

McDonald et al teach:

-   in an object oriented computer system, a method of generating software components ("the

    steps entailed in creating a new object…" in col. 10 line 48)

-   loading a structure of an object to a memory means (Note Figure 11 and the corresponding

    section of the disclosure)

-   loading a file structure data by a file component loader (Note Figure 18, step 318 and the

    corresponding section of the disclosure. A loader would inherently be called to load the

    shape table for searching.)

-   Interfacing between the structure of an object and the file structure data by an interface

    object (Note Figure 18, step 318 and the corresponding section of the disclosure. An

    interface object would inherently be called so that the memory is able to interact with the

    shape table.)

-   Interfacing between the structure of an object and the file structure data by an interface object using the methods InitComplexRepository(), GetComplexData() and PutComplexData()(Note Figure 18, if a shape is determined to be new, the shape table is initialized with the new shape object. Further, once the shape is initialized into the shape table, it can be accessed with get or set methods, as shown in Figure 21, item 386.)

-   Having said structure contains a plurality of pointers to complex functionalities and complex data storage buffers (Note Figure 15 and the corresponding sections of the disclosure)

-   Loading the file structure data by a file component loader which includes complex functionality and a knowledge base (Note Figure 15 and the corresponding sections of the disclosure. The system must access the shape table, which represents a knowledge base, as it developers a greater listing of shapes for each new shape that the system encounters. Further, the property lists describe the functionality of the components or objects.)

substantially as claimed. McDonald et al disclose a structure containing a plurality of pointers to complex functionalities and complex data storage buffers (Note Figure 12 and the corresponding sections of the disclosure). McDonald et al do not disclose buffers including metadata models. Kagiwada discloses in an analogous object-oriented system a metadata model ("held in the management unit itself, formally as link meta-information..." in col. 6 lines 63-64). It would have been obvious to someone of ordinary skill in the art at the time the invention was made to use the metadata-based system of Kagiwada with the software object modeling system of McDonald et al, as the metadata model can be used to easily describe the interaction of the system, enabling end users to easily realize the navigation among the objects, as stated in col. 1 lines 37-40 of Kagiwada.

Per claim 30:

Claim 30 recites a device for performing the method of claim 28, and is rejected for the reasons set

forth in connection with claim 28.

11.   Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,480,856

to McDonald et al, in view of U.S. Patent 5,305,389 to Palmer.

Regarding claim 32:

McDonald et al teach:

-   A computer program product for generating software components ("the steps entailed in

    creating a new object…" in col. 10 line 48)

-   The computer program product comprising a computer usable medium having computer

    readable program code thereon, including program code for loading a structure of an object

    to a memory means (Note Figure 11 and the corresponding section of the disclosure)

-   Program code for loading a file structure data by a file component loader (Note Figure 18,

    step 318 and the corresponding section of the disclosure. A loader would inherently be

    called to load the shape table for searching.)

-   Program code for Interfacing between the structure of an object and the file structure data

    by an interface object (Note Figure 18, step 318 and the corresponding section of the

    disclosure. An interface object would inherently be called so that the memory is able to

    interact with the shape table.)

-   A base component has interfaces and the program code for interfacing between the

    structure of an object and the file structure data by an interface object using the methods

    InitComplexRepository(), GetComplexData() and PutComplexData()(Note Figure 18, if a

shape is determined to be new, the shape table is initialized with the new shape object.

Further, once the shape is initialized into the shape table, it can be accessed with get or set

methods, as shown in Figure 21, item 386.)

- said base component has interfaces and the program code for having the structure contains a

    plurality of pointers to complex functionalities and complex data storage buffers (Note

    Figure 15 and the corresponding sections of the disclosure)

substantially as claimed. McDonald et al disclose a structure containing a plurality of pointers to

complex functionalities and complex data storage buffers (Note Figure 12 and the corresponding

sections of the disclosure). However, McDonald does not disclose buffers including pattern

recognition components. Palmer discloses in an analogous object based system pattern recognition

components ("the pattern recognition component…" in col. 2 line 27). It would have been obvious

to someone of ordinary skill in the art at the time the invention was made to use the pattern

recognition system of Palmer with the software object modeling system of McDonald et al, as the

pattern recognition would enable predictive memory caching, thereby increasing the performance of

memory accesses in the system disclosed by McDonald et al.

12.   Claims 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

6,480,856 to McDonald et al, in view of U.S. Patent 5,940,820 to Kagiwada, further in view of U.S.

Patent 5,305,389 to Palmer.

Regarding claim 29:

The rejection of claim 28 is incorporated, and further, McDonald et al disclose a structure

containing a plurality of pointers to complex functionalities and complex data storage buffers (Note

Figure 12 and the corresponding sections of the disclosure). However, neither McDonald et al nor Kagiwada disclose buffers including pattern recognition components. Palmer discloses in an analogous object based system pattern recognition components ("the pattern recognition component…" in col. 2 line 27). It would have been obvious to someone of ordinary skill in the art at the time the invention was made to use the pattern recognition system of Palmer with the software object modeling system of McDonald et al modified by Kagiwada, as the pattern recognition would enable predictive memory caching, thereby increasing the performance of memory accesses in the system disclosed by McDonald et al modified by Kagiwada.

Regarding claim 31:

Claim 31 recites a device for performing the method as disclosed in claim 29, and is rejected for the reasons set forth in connection with claim 29.

13.   Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,480,856 to McDonald et al, in view of U.S. Patent 5,305,389 to Palmer, further in view of U.S. Patent 6,421,690 to Kirk, III.

Regarding claim 33:

The rejection of claim 32 is incorporated, and further, McDonald et al teach:

- allocating an object in a memory means (Note Figure 11 and the corresponding section of the disclosure. Memory would inherently be allocated for a memory structure to be created.)

- copying the structure to a memory means (Note Figure 11 and the corresponding section of the disclosure)

- placing the records of complex data, complex functionality and knowledge base in the

  complex data storage buffer (Note Figures 14 and 15 and the corresponding sections of the

  disclosure. These structures are inherently stored in storage locations.)

- creating complex data at instantiation moment (Note Figure 12 and the corresponding

  section of the disclosure. To create the memory structure, the object would be instantiated

  with the values and properties which are listed in the memory structure.)

- modifying complex data (Note Figure 16, item 290 and the corresponding section of the

  disclosure. The object includes get/set methods to modify data.)

- deciding whether to write complex data, complex functionality and knowledge base to a

  memory means (Note Figure 18, item 318 and the corresponding section of the disclosure. A

  determination is made whether to write new shape information to the shape table.)

- exposing the structures and functionality through an interface that performs all specific tasks

  of the object itself and administrative tasks related to the structure (Note figure 16, item 290

  and the corresponding section of the disclosure. A list of references to methods for an

  object is shown, these methods allow exposure to get/set methods which allow tasks to be

  performed on an object.)

McDonald et al disclose where all structures can be used like memory structures (Note Figure 15, all

data structures are in memory.) Neither McDonald et al nor Palmer disclose all memory allocations

and swapping being managed by the object itself. Kirk, III teach in an analogous object-oriented

system objects which provide automatic memory management ("a Generic Memory Management

System…which defines relational schemes for memory pointers in object-based computer systems."

in col. 2, lines 44-47). It would have been obvious to someone of ordinary skill in the art at the time

the invention was made to use the automatic memory management system of Kirk, III with the

software object modeling system of McDonald et al modified by Palmer, as this would help reduce

the occurrences of null references (dangling pointers) to objects which may be caused by improper

memory management, as shown in col. 1 line 24 to col. 2 line 41 of Kirk, III.

Response to Arguments

14.   Applicant's arguments filed 7 May 2004 have been fully considered but they are not

persuasive.

15.   Applicant's arguments amount to a general allegation that the claims define a patentable

invention without specifically pointing out how the language of the claims patentably distinguishes

them from the references. Note 37 CFR 1.111(b). The applicant's arguments fail to point out any

supposed errors in the rejections applied by the Examiner. Consequently, the rejections are

maintained.

Conclusion

16.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office

action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is

reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS

from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the

mailing date of this final action and the advisory action is not mailed until after the end of the

THREE-MONTH shortened statutory period, then the shortened statutory period will expire on

the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory

period for reply expire later than SIX MONTHS from the date of this final action.

17.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Trent J Roche whose telephone number is (703)305-4627. The examiner can

normally be reached on Monday - Friday, 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Kakali Chaki can be reached on (703)305-9662. The fax phone number for the organization where

this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system,

see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system,

contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

<div style="text-align:right">
Trent J Roche
Examiner
Art Unit 2124
</div>

TJR

ANIL KHATRI
PRIMARY EXAMINER